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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,520	02/02/2006	Abbas Razavi	F-863 (31223.00086)	9377
25264 7590 03/03/2008 FINA TECHNOLOGY INC PO BOX 674412 HOUSTON, TX 77267-4412				
EXAMINER				
LU, C CAIXIA				
ART UNIT		PAPER NUMBER		
1796				
MAIL DATE		DELIVERY MODE		
03/03/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/535,520

**Applicant(s)**

RAZAVI, ABBAS

**Examiner**

Caixia Lu

**Art Unit**

1796

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 22-26 and 28-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 22-26 and 28-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 22, 2008 has been entered.

### ***Claim Rejections - 35 USC § 103***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 22-26 and 28-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katayama et al. (EP 0 741 145).

Katayama teaches a metallocene catalyst complex represented by Formula (I) for olefin polymerization (page 3, line 35 to page 4, line 56; and page 5, line 34 to page 9, line 18), wherein the metallocene complexes are selected from bridged metallocene complexes such as ethylenecyclopentadienyl pyrrolyl titanium dichloride (page 5, line 58) and dimethylsilylindenyl triphenylphospholyl titanium dichloride (page 7, lines 12-13). It is noted that Katayama does not exclude any of the bridge position relative to nitrogen or phosphorus in the ring, one would have understood that all positions including nitrogen or phosphorus position in the ring can be the bridging position. It is also noted that Katayama expressly exemplifies the cyclopentadienyl ring structure of Formula (I) to be substituted or unsubstituted fluorenyl groups such as dimethylfluorenyl, t-

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butylfluorenyl, etc.. Therefore, it would have been obvious to for a skilled artisan to envision fluorenyl group containing metallocene complexes by replace the cyclopentadienyl or indenyl groups in complexes such as ethylenecyclopentadienyl pyrrolyl titanium dichloride and dimethylsilylindenyl triphenylphospholyl titanium dichloride with fluorenyl or substituted fluorenyl groups.

Thus, it would have been obvious to a skilled artisan at the time the invention was made to employ Katayama's teaching to prepare various metallocene complexes such as those represented by Formula (II) of claim 25 and use those metallocene catalysts to conduct olefin polymerizations in search for catalysts with superior activities or stabilities or stereoregularities since such is within the scope of the Katayama's teaching and in the absence of any showing criticality and unexpected results.

#### ***Response to Arguments***

4. Applicant's arguments with respect to the rejected claims have been considered but are moot in view of the rejections as shown above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Caixia Lu whose telephone number is (571) 272-1106. The examiner can normally be reached from 9:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful and the matter is urgent, the examiner's supervisor, David Wu, can be reached at (571) 272-1114. The fax numbers for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1700.

/Caixia Lu/  
Caixia Lu, Ph. D.  
Primary Examiner